

INPUT

```
1 dict = {
2     "brand": "ford",
3     "model": "mustang",
4     "year": 1964
5 }
6
7 print(dict)
8 print(dict["model"])
9 dict["color"] = "orange"
10 print(dict)
11 dict["year"] = 2007
12 print(dict)
13 del dict["model"]
14 print(dict)
15 for key in dict:
16     print(key, dict[key])
17 dict1 = {x: x**2 for x in (2, 4, 6)}
18 print(dict)
```

OUTPUT

```
{'brand': 'ford', 'model': 'mustang', 'year': 1964}
mustang
{'brand': 'ford', 'model': 'mustang', 'year': 1964, 'color': 'orange'}
{'brand': 'ford', 'model': 'mustang', 'year': 2007, 'color': 'orange'}
{'brand': 'ford', 'year': 2007, 'color': 'orange'}
brand ford
year 2007
color orange
{'brand': 'ford', 'year': 2007, 'color': 'orange'}

Process finished with exit code 0
```

INPUT

```
1  s="welecome to shridevi polytechnic"
2  print("string before:",s)
3  a=s.split()
4  res=[]
5  for i in a:
6      x=i [0].upper()+i[1:-1]+i[-1].upper()
7      res.append(x)
8  res=" ".join(res)
9  print("string after:",res)
10
```

OUTPUT

```
string before: welecome to shridevi polytechnic
string after: WelecomE TO ShridevI PolytechniC
```

```
Process finished with exit code 0
```

INPUT

```
1  import array as arr
2  a= arr.array( typename: 'i', initializer: [11,22,33])
3  print("original array:",end=" ")
4  for i in range(0,3):
5      print(a[i],end=" ")
6  a.insert ( i: 1, v: 44)
7  print("\n array after insertion :",end=" ")
8  for i in a:
9      print(i, end=" ")
10 a.pop(2)
11 print("\n array after deletion:", end=" ")
12 for i in a:
13     print(i,end=" ")
```

OUTPUT

```
original array: 11 22 33
array after insertion : 11 44 22 33
array after deletion: 11 44 33
Process finished with exit code 0
```

INPUT

```
1 student_name=["manjunath","nikhil","akash"]
2 roll_number=[533,531,542]
3 mapped=zip(student_name,roll_number)
4 print(set(mapped))
5
```

OUTPUT

```
{('nikhil', 531), ('akash', 542), ('manjunath', 533)}
```

```
Process finished with exit code 0
```

INPUT

```
1 def compute (radius): 1usage
2     return 2*3.14*radius
3 r=float(input("The radius of the circle:"))
4 res=compute(r)
5 print("The circumference of the circle is:",res)
6
```

OUTPUT

```
The radius of the circle:6.5
```

```
The circumference of the circle is: 40.82
```

```
Process finished with exit code 0
```

INPUT

```
1  def reverse(n,r): 2 usages
2      if n==0:
3          return r
4      else:
5          return reverse (n//10,r*10+n%10)
6  n=int(input("Enter number:"))
7  reversed_num=reverse(n, r: 0)
8  print("Revered number:",reversed_num)
```

OUTPUT

```
Enter number:369
Revered number: 963
```

```
Process finished with exit code 0
```

INPUT

```
1  x=int(input("Enter the number:"))
2  square=lambda x:x*x
3  cube=lambda x:x*x*x
4  print("The square of as given number:",square(x))
5  print("The cube of a given number:",cube(x))
```

OUTPUT

```
Enter the number:36
The square of as given number: 1296
The cube of a given number: 46656
```

```
Process finished with exit code 0
```

INPUT

```
1  from calc import *
2  from math import *
3  a=int(input("a:"))
4  b=int(input("b:"))
5  res=add(a,b)
6  print("Add:",res)
7  res=sub(a,b)
8  print("Sub:",res)
9  res=mul(a,b)
10 print("Mul:",res)
11 res=div(a,b)
12 print("div:",res)
13 print("Square root:",sqrt(a))
14 print("Square root:",sqrt(b))
--
```

CALC.PY

```
1  def add(a,b): 1 usage
2      return a+b
3  def sub(a,b): 1 usage
4      return a-b
5  def mul(a,b): 1 usage
6      return a*b
7  def div(a,b): 1 usage
8      return a/b
```

OUTPUT

```
a:36
b:96
Add: 132
Sub: -60
Mul: 3456
div: 0.375
Square root: 6.0
Square root: 9.797958971132712

Process finished with exit code 0
```

INPUT

```
1 import math
2 def compute(radius): 1usage
3     return math.pi*radius*radius
4 radius=float(input("Enter the radius of the circle:"))
5 area=compute(radius)
6 print("The area of a circle is:",area)
```

OUTPUT

```
Enter the radius of the circle:6.5
The area of a circle is: 132.73228961416876

Process finished with exit code 0
```

INPUT

```
1 import numpy as np
2 a=np.array([1,5,7,9,11])
3 print("a:",a)
4 mean=np.mean(a)
5 print("mean:",mean)
6 median=np.median(a)
7 print("median:",median)
```

OUTPUT

```
a: [ 1  5  7  9 11]
mean: 6.6
median: 7.0

Process finished with exit code 0
```

INPUT

```
1 import pandas as pd
2 mydataset={'cars':['BMW',"VOLVO","FORD"],'passins':[3,7,2]}
3 myvar=pd.Series(mydataset)
4 print(myvar)
r
```

OUTPUT

```
cars      [BMW, VOLVO, FORD]
passins    [3, 7, 2]
dtype: object
```

Process finished with exit code 0

INPUT

```
1 import pandas as pd
2 mydataset={'cars':['bmw',"volvo","ford"],'passing':[3,7,2]}
3 myvar=pd.DataFrame(mydataset)
4 print(myvar)
```

OUTPUT

```
   cars  passing
0  bmw         3
1  volvo        7
2  ford         2
```

Process finished with exit code 0

INPUT

```
1 f=open("demofile.txt","r")
2 print(f.read())
3 f=open("demofile.txt","a")
4 f.write(" World")
5 f=open("demofile.txt","r")
6 print(f.read())
```

OUTPUT

≡ demofile.txt ×

```
1 HELLO
```

HELLO

HELLO World

Process finished with exit code 0